

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT

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5/20/02

In re Application of:

LINDELL, A., et al.

Serial No.: 09/692,303

Filing Date: October 19, 2000

For: RADIATION CURABLE HOT MELT
COMPOSITION AND A PROCESS
FOR THE APPLICATION THEREOFAssistant Commissioner for Patents
Washington, D.C. 20231

Docket: ACO2736US

Examiner: PIANALTO, B

Group Art Unit: 1762

CERTIFICATE OF FACSIMILE TRANSMISSION

It is hereby certified that the attached:
TRANSMITTAL LETTER IN DUPLICATE; AND
RESPONSE TO OFFICE ACTION (5 sheets) is
being faxed to 703-872-9310 to the Assistant
Commissioner for Patents

5/20/02
Angeline AHO

RESPONSE

In response to the Office Action dated December 19, 2001 and in accordance with the provisions of 37 C.F.R. § 1.116, applicants provide the following remarks for entry in the above-identified case.

The Examiner has rejected claims 6-10 as allegedly anticipated by Bolte et al., under 35 U.S.C. 102(a). Applicants respectfully traverse this rejection.

Bolte et al. (US-A-4,990,364) discloses a process for coating a substrate with a coating composition comprising (a) a polymerizable, hydroxyl-containing polymer, (b) a polymerizable polyester and/or an copolymer thereof, and (c) a polymerizable ethylenically unsaturated oligomer. Contrary to the present invention, both heat and UV radiation are necessary to cure the composition, i.e. to obtain a non-tacky coating.

Bolte does not disclose a process for coating a substrate to provide a non tacky protective coating or film thereon, said process comprising the steps of providing a radiation curable hot melt composition comprising a) 20 to 100 wt.% of a radiation curable resin or a mixture of radiation curable resins having a

viscosity in the range from 15 to 10,000 mPas in the temperature range from 40 to 150°C, b) 0 to 50 wt.% of a hydroxyfunctional resin or oligomer or a mixture of hydroxyfunctional resins or oligomers, c) 0 to 10 wt.% of a photoinitiator, d) 0 to 50 wt.% of fillers and/or additives, and e) 0 to 40 wt.% of pigment, wherein the total amount of components a) to e) adds up to 100 wt.%, heating said hot melt composition to a temperature in the range from 40 to 150°C, applying said hot melt composition to the substrate in the form of a coating or thin film, and curing said hot melt by exposing the coated substrate to electromagnetic radiation having a wavelength $\lambda \leq 500$ nm.

More particularly, in Bolte, preferably, polymers used as component (a) have a melting point above 100 °C, see column 7, lines 3 and 4. Thus, component (a) has a **high viscosity**. Component (b) preferably has a low viscosity. At column 10, lines 52 and 53, it is stated that preferred polyesters, which can be used as component (b), have a viscosity between 5 and 10000 Pa.s at 120°C, i.e. between 5000 and 10000000 mPa.s at 120°C.

Also, to the extent that any of the elements of the present invention are found in Bolte, the compositions that are found in the process of Bolte and which are summarized in the examples of Bolte, either comprise polymers having a viscosity outside the range of 15 to 10000 mPa.s in the temperature range from 40 to 150°C, or these compositions comprise more than 50 wt.% hydroxyfunctional polymer. Consequently, neither the description nor the Examples of Bolte discloses a process having all elements of the present application.

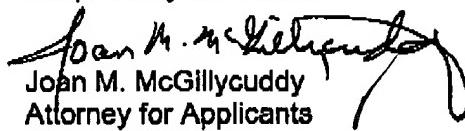
The exclusion of a claimed element, no matter how insubstantial or obvious, from a prior art reference is enough to negate anticipation. *Connell v. Sears, Roebuck & co.*, 220 USPQ 193, 198 (Fed. Cir. 1983). More importantly, if, as is the case here, there is not a reasonable certainty that the claimed subject matter will necessarily result, a rejection based on anticipation must fail. *In re Brink*, 164 USPQ 247, 249 (CCPA 1970).

Furthermore, in the process of Bolte, the coating compositions used are coating compositions comprising polymers with high viscosity. These compositions require high application temperatures and are thus less suited to be applied to heat sensitive substrates such as wood or plastic. The compositions comprising more than 50 wt.% hydroxyfunctional polymer result in tacky coatings when cured, as in the present invention, using **UV radiation only**. Contrary to the present invention, Bolte does not disclose a composition with less than 50 wt % hydroxyfunctional polymer that is UV cured only.

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & co.*, 220 USPQ 193 (Fed. Cir. 1983)). Bolte does not disclose the present invention and furthermore assuming arguendo that individual elements of the present invention can somehow be located and extracted from the Bolte reference, as such in no way is the present invention anticipated. It is not enough that the prior art disclose the elements of the invention in isolation. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984)

In view of the remarks herein, the papers on file previously, the present application is believed to be in condition for allowance, which action is respectfully requested.

Respectfully submitted,


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TRANSMITTAL LETTER

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Sir:

Transmitted herewith is a responsive document(s) for this application.
TRANSMITTAL LETTER IN DUPLICATE; RESPONSE TO OFFICE ACTION and
CERTIFICATE OF FACSIMILIE.

Applicant hereby petitions for an extension of time under 37 CFR 1.136

One Month (\$110.00)

Two Months (\$400.00)

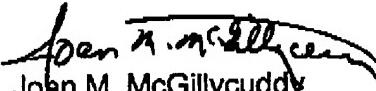
Three Months (\$920.00)

Four Months (\$1,440.00)

Additional claims are presented. The fee therefore is:

The total fee believed due is \$400.00. Please charge this amount and any other fees
which may be due (including filing fees under 37 CFR 1.16 and processing fees under
37 CFR 1.17) to Deposit Account No. 01-1350. If an extension of time is required but
has not been requested above, Applicant hereby petitions for an extension of time
sufficient for the attached document(s) to be timely. A duplicate copy of this sheet is
enclosed.

Respectfully submitted,


Joan M. McGillycuddy
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Akzo Nobel Inc.
Intellectual Property Dept.
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